

Application No. 10/780,747  
Amendment under 37 CFR 1.312  
Reply to Notice of Allowance dated May 15, 2008  
July 2, 2008

IN THE CLAIMS

Please substitute the following claims for the pending claims with the same numbers, respectively:

Claim 1 (Currently amended): A mobile terminal device having a route guiding function of guiding along a route by obtaining map information from a server system via a radio communication network, comprising:

a position detecting unit which detects a current position of the mobile terminal device;

a bearing detecting unit which detects a first bearing to which the mobile terminal device is directed;

a map information acquiring unit which transmits predetermined specific information to identify a destination and positional information of a current position to the server system, and acquires map information on a section containing the destination and the current position from the server system;

a target bearing calculating unit which calculates a second bearing from a current position to the destination based on the positional information and the predetermined specific

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information;

a judging unit that judges whether a difference between the first bearing and the second bearing is less than or greater than a predetermined value, or is equal to the predetermined value;

a displaying unit which displays a map based on the map information acquired from said map information acquiring unit, displays predetermined icon images at a position of the destination and the current position respectively, and displays an icon image indicating the first bearing; and

a target capturing unit which produces a first melody when the judging unit judges that the difference is less than the predetermined value, produces ~~a second~~ no melody when the judging unit judges that the difference is greater than the predetermined value, and produces ~~[[no]]~~ a second melody when the judging unit judges that the difference is equal to the predetermined value.

Claim 2 (Previously presented): The mobile terminal device having a route guiding function according to claim 1, wherein the target capturing unit blinks the icon image displayed at the position of the destination when the first bearing coincides with the second bearing.

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Claim 3 (Currently amended): A mobile terminal device having a route guiding function of guiding along a route by obtaining map information from a server system via a radio communication network, comprising:

a position detecting unit which detects a current position of the mobile terminal device;

a bearing detecting unit which detects a first bearing to which the mobile terminal device is directed;

a map information acquiring unit which transmits predetermined specific information to identify a destination and positional information on a current position to the server system, and acquires map information of a section containing the destination and the current position from the server system;

a target bearing calculating unit which calculates a second bearing from the current position to the destination based on the positional information and the specific information;

a judging unit that judges whether a difference between the first bearing and the second bearing is less than or greater than a predetermined value, or is equal to the predetermined value;

a displaying unit which displays a map based on the map

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information acquired from said map information acquiring unit, displays a predetermined icon image at the current position, and displays an icon image indicating the first bearing and an icon image indicating the second bearing; and

a target capturing unit which produces a first melody when the judging unit judges that the difference is less than the predetermined value, produces ~~a second~~ no melody when the judging unit judges that the difference is greater than the predetermined value, and produces ~~[[no]]~~ a second melody when the judging unit judges that the difference is equal to the predetermined value.

Claim 4 (Currently amended): A route guiding method utilizing a mobile terminal device including a position detecting unit for detecting a current position of the mobile terminal device and a bearing detecting unit for detecting a first bearing to which the mobile terminal device is directed to the mobile terminal device, and a server system, to which the mobile terminal device is connected via a radio communication network and which stores a map database including map information including map image data and information to identify a position on a map, the method comprising the steps of:

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causing the server system to execute the steps of,

searching the map information containing a destination and the current position from the map database based on positional information of the current position and specific information of the destination which are transmitted from the mobile terminal device, and

sending the map information obtained in said step of searching the map information to the mobile terminal device; and

causing the mobile terminal device to execute the steps of,

transmitting the specific information designated by a user to the server system,

transmitting the positional information of the current position detected by the position detecting unit to the server system,

receiving the map information sent from the server system,

calculating a second bearing from the current position to the destination based on the positional information and the specific information,

judging whether a difference between the first bearing

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and the second bearing is less than or greater than a predetermined value, or is equal to the predetermined value;

displaying a map based on the map information acquired in said step of searching the map information, displaying predetermined icon images to overlap with a position of the destination and the current position, and displaying an icon image indicating the first bearing, and

producing a first melody when the judging unit judges that the difference is less than the predetermined value, ~~produces a second~~ producing no melody when the judging unit judges that the difference is greater than the predetermined value, and ~~produces no~~ producing a second melody when the judging unit judges that the difference is equal to the predetermined value.

Claim 5 (Currently amended): A route guiding method utilizing a mobile terminal device including a position detecting unit for detecting a current position of the mobile terminal device and a bearing detecting unit for detecting a first bearing to which the mobile terminal device is directed to the mobile terminal device, and a server system, to which the mobile

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terminal device is connected via a radio communication network and which stores a map database including map information including map image data and information to identify a position on a map, the method comprising the steps of:

causing the server system to execute the steps of,

searching the map information containing a destination and the current position from the map database, based on positional information of the current position and specific information of the destination which are transmitted from the mobile terminal device, and

sending the map information obtained in said step of searching the map information to the mobile terminal device; and

causing the mobile terminal device to execute the steps of

transmitting the specific information designated by a user to the server system,

transmitting the positional information of the current position detected by the position detecting unit to the server system,

receiving the map information sent from the server system,

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calculating a second bearing from the current position to the destination based on the positional information and the specific information,

judging whether a difference between the first bearing and the second bearing is less than or greater than a predetermined value, or is equal to the predetermined value;

displaying a map based on the map information acquired in said step of searching the map information, displaying a predetermined icon image at the current position, and displaying an icon image indicating the first bearing and an icon image indicating the second bearing, and

producing a first melody when the judging unit judges that the difference is less than the predetermined value, ~~produces a second~~ producing no melody when the judging unit judges that the difference is greater than the predetermined value, and ~~produces no~~ producing a second melody when the judging unit judges that the difference is equal to the predetermined value.

Claim 6 (Currently amended): A computer readable recording medium storing a program for guiding along a route with utilizing



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a mobile terminal device including a position detecting unit for detecting a current position of the mobile terminal device and a bearing detecting unit for detecting a first bearing to which the mobile terminal device is directed to the mobile terminal device, and a server system, to which the mobile terminal device is connected via a radio communication network and which stores a map database including map information including map image data and information to identify a position on a map, wherein

the program causes the server system to execute the steps of,

searching the map information containing a destination and the current position from the map database based on positional information of the current position and specific information of the destination which are transmitted from the mobile terminal device, and

sending the map information obtained in said step of searching the map information to the mobile terminal device; and

the program causes the mobile terminal device to execute the steps of,

transmitting the specific information designated by a

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user to the server system,

transmitting the positional information of the current position detected by the position detecting unit to the server system,

receiving the map information sent from the server system,

calculating a second bearing from the current position to the destination based on the positional information and the specific information,

judging whether a difference between the first bearing and the second bearing is less than or greater than a predetermined value, or is equal to the predetermined value;

displaying a map based on the map information acquired in said step of searching the map information, displaying predetermined icon images to overlap with a position of the destination and the current position, and displaying an icon image indicating the first bearing, and

producing a first melody when the judging unit judges that the difference is less than the predetermined value, ~~produces a second~~ producing no melody when the judging unit judges that the difference is greater than the predetermined

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value, and ~~produces no~~ producing a second melody when the judging unit judges that the difference is equal to the predetermined value.

Claim 7 (Currently amended): A computer readable recording medium storing a program for guiding along a route with utilizing a mobile terminal device including a position detecting unit for detecting a current position of the mobile terminal device and a bearing detecting unit for detecting a first bearing to which the mobile terminal device is directed to the mobile terminal device, and a server system, to which the mobile terminal device is connected via a radio communication network and which stores a map database including map information including map image data and information to identify a position on a map, wherein

the program causes the server system to execute the steps of,

searching the map information containing a destination and the current position from the map database, based on positional information of the current position and specific information of the destination which are transmitted from the mobile terminal device, and

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    sending the map information obtained in said step of  
    searching the map information to the mobile terminal device;  
    and  
    the program causes the mobile terminal device to execute the  
steps of,

        transmitting the specific information designated by a  
user to the server system,

        transmitting the positional information of the current  
position detected by the position detecting unit to the  
server system,

        receiving the map information sent from the server  
system,

        calculating a second bearing from the current position  
to the destination based on the positional information and  
the specific information,

        judging whether a difference between the first bearing  
and the second bearing is less than or greater than a  
predetermined value, or is equal to the predetermined value;

        displaying a map based on the map information acquired  
in said step of searching the map information, displaying a  
predetermined icon image at the current position, and

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displaying an icon image indicating the first bearing and an icon image indicating the second bearing, and

producing a first melody when the judging unit judges that the difference is less than the predetermined value, ~~produces a second~~ producing no melody when the judging unit judges that the difference is greater than the predetermined value, and ~~produces no~~ producing a second melody when the judging unit judges that the difference is equal to the predetermined value.

Claim 8 (Previously presented): The mobile terminal device having a route guiding function according to claim 1, further comprising a relative bearing calculating unit which calculates the difference between the first bearing and the second bearing.

Claim 9 (Previously presented): The mobile terminal device having a route guiding function according to claim 3, further comprising a relative bearing calculating unit which calculates the difference between the first bearing and the second bearing.

Claim 10 (Previously presented): The route guiding method

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utilizing a mobile terminal device according to claim 4, further comprising the step of: calculating a relative bearing which is the difference between the first bearing and the second bearing.

Claim 11 (Previously presented): The computer readable recording medium storing a program for guiding along a route with utilizing a mobile terminal device according to claim 6, further comprising the step of: calculating a relative bearing which is the difference between the first bearing and the second bearing.

Claim 12 (Previously presented): The mobile terminal device having a route guiding function according to claim 8, further comprising means for displaying another icon image indicating the second bearing on said displaying unit.

Claim 13 (Previously presented): The mobile terminal device having a route guiding function according to claim 1, wherein the position information of the current position is indicated by a latitude A of the current position and a longitude B of the current position, and the predetermined specific information to identify a destination is indicated by a latitude C of the

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destination and a longitude D of the destination; and

wherein the second bearing is calculated by a formula:  $\theta = \arctan \left( \frac{\text{the latitude C} - \text{the latitude A}}{\text{the longitude D} - \text{the longitude B}} \right)$ .

Claim 14 (Previously presented): The mobile terminal device having a route guiding function according to claim 3, wherein the position information of the current position is indicated by a latitude A of the current position and a longitude B of the current position, and the predetermined specific information to identify a destination is indicated by a latitude C of the destination and a longitude D of the destination; and

wherein the second bearing is calculated by a formula:  $\theta = \arctan \left( \frac{\text{the latitude C} - \text{the latitude A}}{\text{the longitude D} - \text{the longitude B}} \right)$ .